

## **REMARKS**

After entry of this Response, Claims 1-4 and 7-61 are pending, with Claims 1, 7 and 10-61 withdrawn, and Claims 2, 4 and 8 are amended. Applicants note that the species election requirement directed to the method for expression determination has been withdrawn.

### **REJECTION OF CLAIMS 2-4, 8 AND 9 UNDER 35 U.S.C. § 112, SECOND PARAGRAPH**

Claims 2-4 8, and 9 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner objected to the use of the terms “under high stringency conditions.” Though Applicants traverse this finding, the currently pending claims no longer recite this term, and thus, the rejection is moot. Applicants request the Examiner withdraw the rejection.

### **REJECTION OF CLAIM 9 UNDER 35 U.S.C. § 112, FIRST PARAGRAPH**

Claim 9 was rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicants traverse this rejection. In the specification, at least at paragraph 56, where DNA array refers to “gene arrays, DNA chips, dot array Southern, etc.” and “the DNA array will typically include one or a multiplicity of nucleic acid molecules derived from SEQ. ID NO. 1 through SEQ. ID NO. 327”. Applicants respectfully submit that the specification, at least at paragraph 56, teaches using a DNA array to identify hybridizing nucleic

acid sequences, which includes RNA sequences binding to DNA sequences bound in an array.

Applicants request that the Examiner withdraw the rejection.

**REJECTION OF CLAIMS 2-4, 8 AND 9 UNDER 35 U.S.C. § 102(B)**

Claims 2-3, and 8 were rejected under 35 U.S.C. § 102(b) as being anticipated by Dong, et al. (March 1999), herein after “Dong 1999”. Applicants respectfully traverse this rejection.

The Examiner stated that “Dong 1999 cites Dong et al (1996) for describing the hybridizing conditions used by Dong 1999 in Northern blot hybridization assays. The method of Dong et. al (Applicants’ assumption is that the reference here and in the rest of the paragraph of the rejection is to Dong 1999, though it is not clear which Dong reference is meant) comprises detecting expression in a conifer embryo at least two RNA transcripts via Northern blot analysis.”

Applicants currently claimed invention is not taught by Dong 1999. At best, Dong 1999 discloses six cDNAs derived from a white spruce, (*Picea glauca* (Moench) Voss) embryo. This disclosure does not provide an anticipatory teaching of Applicants’ currently claimed invention, because Dong 1999 merely teaches isolation of six cDNAs, but does not provide a teaching for providing a method for staging conifer embryos with sequences that can provide a molecular marker for a particular stage of development. Dong 1999 teaches six cDNA sequences that are made from protein coding regions and these clones will cross hybridize with all members of the gene family. Such cross hybridization does not provide for a specific marker and does not allow for staging of embryos. Dong 1999 teaches that RNA transcripts related to pgEMB2 are constitutively made throughout the embryo stages, which teaches that this clone is ineffective as

a marker. See page 860, second col. PgEMB8 is not found in zygotic embryos, and thus does not function as a marker. All of the other clones are taught as members of gene families, which means that cross-hybridization would occur and any correlations would be inaccurate and could not be used to track particular gene activity or embryo staging. Applicants respectfully submit that Dong 1999 does not provide an anticipatory teaching of the currently claimed invention and request that the Examiner withdraw this rejection.

In re Application of: CAIRNEY, John et al.  
Serial No.: 09/973,994  
Response to Office Action

## CONCLUSION

The foregoing is a complete Response to the Office Action mailed May 19, 2005. Applicants respectfully submit that Claims 2-4, 8 and 9 are patentable, and early and favorable consideration is solicited.

Applicants have included a check in the amount of \$510 for the three month extension of time, but the Commissioner is hereby authorized to charge any other fees that may be required, or to credit any overpayment, to Deposit Account No. 20-1507.

If the Examiner believes there are other issues that can be resolved by a telephone interview, or that there are any informalities that remain in the application which may be corrected by the Examiner's amendment, a telephone call to the undersigned attorney at (404) 885-3652 is respectfully solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Mary Anthony Merchant', with a stylized flourish at the end.

Mary Anthony Merchant, Ph.D.  
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